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Secretary of Agriculture

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Whole No. 1636.

## Report of the State Chemist of Florida. 1905.

We published a letter from Capt. Rose, the State Chemist, week before last, and promised to give some extracts from the report in our next paper, but unfortunately, it was overlooked in making up the paper. We do the next best thing by giving them this week.

### FINANCIAL REPORT OF THE STATE CHEMIST FOR 1905.

Agricultural Department, State of Florida.

Division of Chemistry,  
Tallahassee, Jan. 1, 1906.

To His Excellency, N. B. Broward,  
Governor of Florida, Tallahassee,  
Fla.:

SIR—I have the honor to submit the following report of the receipts and expenditures of this Division of the State Agricultural Department for the year ending December 31, 1905:

Total amount received by State Treasurer for inspection fees, fertilizer stamps on cottonseed meal, commercial fertilizers, and manurial chemicals .....\$26,687.89  
For commercial feed stuffs... 4,846.97

Total receipts by Treas...\$31,534.86  
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#### EXPENDITURES.

Salary State Chemist.....\$ 2,000.00  
Salary Ass't State chemist (Fertilizers) ..... 1,800.00  
Salary Ass't State Chemist (Feed Stuff)..... 541.67  
Salary Inspector ..... 322.50  
Traveling expenses State Chemists ..... 940.84  
Traveling expenses Inspector ..... 201.35  
Laboratory supplies and chemicals ..... 1,132.41

\$ 6,938.77

Balance to credit General Revenue ..... 24,596.09

\$31,534.86

Respectfully submitted,

R. E. ROSE,  
State Chemist.

#### STATE VALUES.

It is not intended by the "State valuation" to fix the price or commercial value of a given brand. The "State values" are the market prices for the various approved chemicals and materials used in mixing or manufacturing commercial fertilizers, at the date of issuing a bulletin, or the opening of the "season." They may, but seldom do, vary from the market prices, and are made liberal to meet any slight advance or decline.

They are compiled from price lists and commercial reports by reputable dealers and journals.

The question is frequently asked: "What is 'Smith's Fruit and Vine'

worth per ton?" Such a question cannot be answered categorically. By analysis, the ammonia, available phosphoric acid, and potash may be determined, and the inquirer informed what the cost of the necessary material to compound a ton of goods similar to "Smith's Fruit and Vine" would be, using none but accepted and well known materials of the best quality.

State values do not consider "trade secrets," loss on bad bills, cost of advertisements, and expenses of collections. The "State value" is simply that price at which the various ingredients necessary to use in compounding a fertilizer can be purchased for cash in ton lots at Florida seaports.

These price lists, in one, five and ten lots, are published in this report, with the "State values" for 1906 deducted therefrom.

The valuation for 1906 being the same as for 1905.

#### STATE VALUATIONS.

For Available and Insoluble Phosphoric Acid, Ammonia and Potash for the Season of 1906:

Available phosphoric acid, 5 cents a pound; insoluble phosphoric acid, 1 cent a pound; ammonia (or its equivalent in nitrogen), 15 one-half cents a pound; potash (as actual potash, K<sub>2</sub>O), 5 and one-half cents a pound; If calculated by units—available phosphoric acid, \$1.00 per unit; insoluble phosphoric acid, 20 cents per unit; ammonia (or its equivalent in nitrogen), \$3.10 per unit; potash, \$1.10 per unit.

With a uniform allowance of \$1.50 per ton for mixing and bagging.

A unit is twenty pounds, or 1 per cent. in a ton. We find this to be the easiest and quickest method for calculating the value of fertilizer. To illustrate this takes for example a fertilizer which analyzes as follows:

Available phosphoric acid, 6.22 per cent. x\$1.00—6.22; insoluble phosphoric acid, 1.50 per cent. x.20—30; ammonia, 3.42 per cent. x\$3.10—10.60; potash, 7.23 per cent. x\$1.10—7.95; mixing and bagging, \$1.50.

Commercial value at sea ports, 26.57, or a fertilizer analysis as follows:

Available phosphoric acid, 8 per cent. x\$1.00—8.00; ammonia, 2 per cent. x\$3.10—6.20; potash, 2 per cent. x\$1.10—2.20; Mixing and bagging, \$1.50.

Commercial value at sea ports, \$17.90.

The above valuations are for cash for materials delivered at Florida seaports, and they can be bought in one ton lots at these prices at the date of issuing this Bulletin. Where fertilizers are bought at interior points, the additional freight to that point must be added.

If purchased in carload lots for cash, a reduction of ten per cent. can be made in above valuations, i. e.:

Available phosphoric acid, 90 cents per unit; potash (K<sub>2</sub>O), 99 cents per

unit; ammonia (or its equivalent in nitrogen), \$2.79 per unit.

The valuations and market prices in succeeding illustrations, are based on market prices for one ton lots. Chem. 2.

#### FARMERS' INSTITUTES.

The necessity for, and value of, the Farmers' Institute, has been practically illustrated by the results of those held throughout the state during 1903 and 1904. The practical work of the various lecturers, and personal explanations given the consumer of fertilizers, and commercial stock feed, is of more direct benefit and value to our farmers and fruit growers than the bulletins, and pamphlets distributed. The discontinuance of these institutes—by failure to appropriate the necessary funds, to carry them on—has been a step backward in the agricultural development of the state.

That the people of the state value and appreciate these institutes is evidenced by the numerous requests for lecturers to meet various farmers' club and associations. When practical such demands are complied with. A liberal appropriation should be made to meet this demand, and a system provided by which at least one institute should be held in each county during each year, where those questions of greatest interest to the locality can be discussed, and the best and most economical methods of modern agriculture explained direct to the people most interested.

In conclusion I desire to commend the careful, scientific work, industry, and accuracy of Mr. M. G. Donk, recently the Assistant State Chemist, (now an assistant in the Chemical Bureau of the United States Agricultural Department); also to the ability, care and industry of the present Assistant State Chemists, Mr. L. Heimburger, and Dr. C. G. Hellman. To their careful and accurate work, the present high standing of the "Florida State Laboratory" is largely attributable. In every instance, when an appeal from the results of the State Laboratory's analysis, has been taken, the correctness of the State Laboratory work has been shown.

To the Hon. B. E. McLin, Commissioner of Agriculture, I am under many obligations for his uniform courtesy, promptness in decision, hearty support and cordial co-operation in maintaining and executing the Fertilizer and Stock Food Laws of the State.

Sharps, Fla., Jan. 25, 1905.

Mr. E. O. Painter,

Dear Sir:

My fruit has never kept as well on the trees or as well en route to market. Trees bear well; scale is less than for years; not 15 boxes of russets in 500. No spraying done either. Oranges large 150 and 125.

Sincerely yours,

Geo. W. Holmes.

## The Eradication of Pear Blight.

The California Fruit Grower devotes most of its space in the last number to this subject.

If it is successfully accomplished in that state, it will be good news to our pear growers in Florida. The blight has become a serious matter, some years in some localities it has almost or quite, destroyed the crop.

The following is the editor's introduction of the subject:

Pear blight, the disease which has already done so much damage to the pear orchards of the state and which a short time ago appeared liable to wipe out entirely the commercial pear growing industry of California, appears now to be in a fair way to be controlled, if not entirely eradicated. This result has been accomplished only after careful and energetic work on the part of those who have had the in charge—the experts of the United States Department of Agriculture, of the State University Experiment Station and of the Horticultural Commissioner's office. The work has been arduous and at times discouraging, but persistence has done a great deal, and conditions now are such as to justify the belief that, with a continuance of the same earnestness that has characterized the work hitherto—and with the hearty co-operation of the growers themselves—pear blight will soon cease to be a menace to the pear growing industry of California.

The co-operation of the growers is absolutely essential to the success of the undertaking. The few men in charge of the work in the different districts cannot do everything themselves. They should only have to instruct and direct. The actual work should be done by those in whose interest it is being carried on. The eradication of pear blight from orchards of California will not greatly benefit the experts and those who are assisting them. The grower is the one to profit, and he should be the one most eager to do all possible to assist in ridding the state of this menace to the future of one of her great industries.

Much credit is due Professor M. B. Waite, the expert of the Department of Agriculture for the interest he has taken in this work and for his untiring efforts to bring it to a successful conclusion. Professor Waite has spent much of his time in California during the past year, and he has just returned to assume charge of the campaign. He brings with him four other experts of the Department, who will co-operate with Professor Smith and his assistants and with the other state experts.

Professor Smith has been working assiduously during the past months directing the growers and the men under him in their fight against the blight, and final success, if it comes, will be largely through his efforts.